

## Section 1-4: Graphs of Functions

**Warm-up:** Give the domain and range of each function.

1.  $\{(1,29),(2,41),(3,12),(4,81)\}$

2.  $y = 4$

3.  $y = |x|$

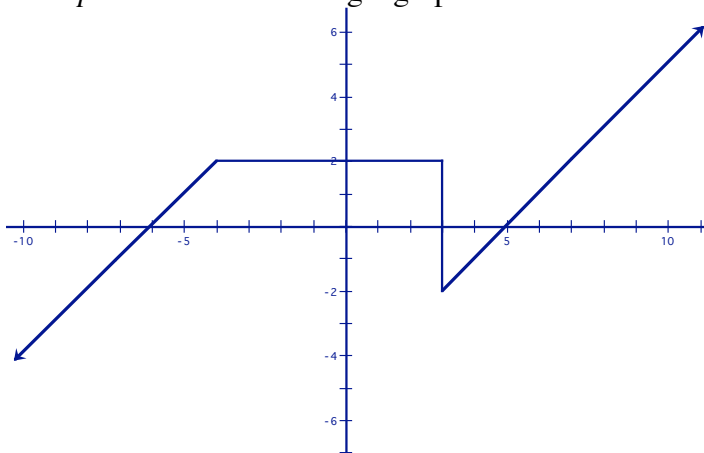
4.  $y = \frac{3}{2x-4}$

*Horizontal Axis:*

*Vertical Axis:*

*Relation:*

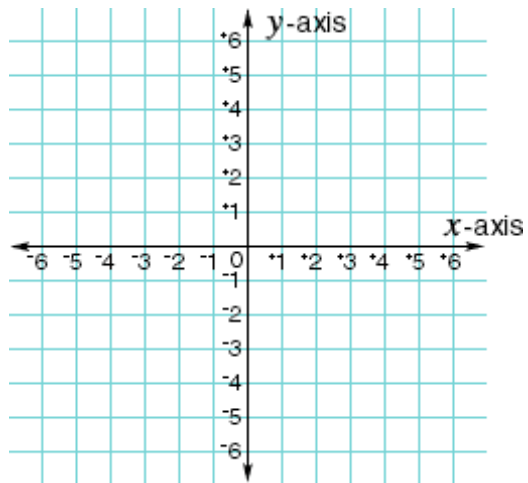
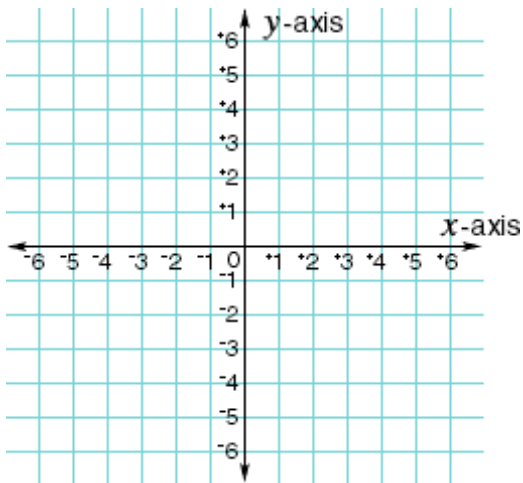
*Example 1:* Is the following a graph of a function?



*Vertical-Line Test:*

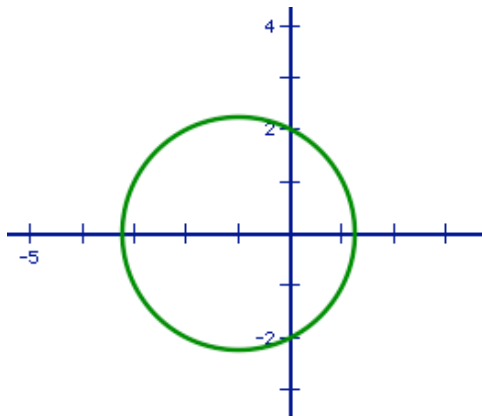
*Example 2:* Consider the line that is parallel to the  $x$ -axis and goes through the point  $(1, 4)$ . Would this be a graph of a function? Justify your answer.

*Example 3:* Make two sketches, where the first is a function and the second is not (other than a vertical line).

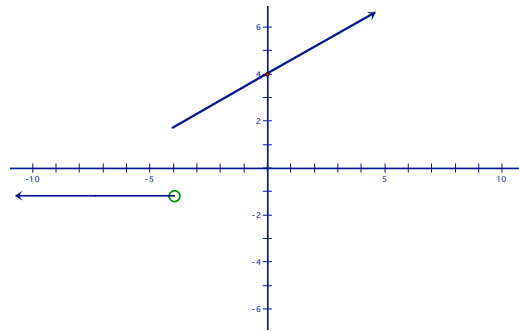


*Example 4:* State whether to following are functions or not.

a.



b.



*Homework:*

**“I have failed many times, and that's why I am a success.” - Michael Jordan**